UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,511	07/08/2003	Nobuhiro Aihara	009683-473	7620

7590   05/10/2007

BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER
ROSARIO, DENNIS

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
05/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Resp. Elect. Req. 4/26/07*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

   4a) Of the above claim(s) *14-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *7/8/03*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election with traverse of Group I in the reply filed on 4/26/07 is acknowledged. The traversal is on the ground(s) that "classification of the various groups…is correct". This is not found persuasive because:

a)   Group I is drawn to area classified in class 382/286: Measuring image properties (e.g., length, width, area). Classification of Group I is correct since both 382/286 and claim 1,line 7 describe area.

b)   Group II is drawn to position classified in 382/216: At multiple image orientations or positions. Classification of Group II is correct since both 382/286 and claim 14, line 9 describe position.

c)   Group III is drawn to size classified in 382/190: "Feature extraction:…such as size" as described in Class 382, IMAGE ANALYSIS. Classification is correct since both 382/190 and claim 15, line 8 describe size.

The requirement is still deemed proper and is therefore made FINAL.

2.   Claims 14-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Groups II and III, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/26/07.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 1, 9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said rotated data region" in lines 5,7 and 8. There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret "said rotated data region" as "said rotated input image data".

Claim 9 recites the limitation "said data regions" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12, line 2"every" does not make sense within the context of claim 12 and appears to need a grammatical correction. "every" will be interpreted as "each".

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et

al. (US Patent 6,493,470 B1).

Regarding claim 1, Ikeda discloses an image processing method comprising:

a.   a first step of detecting a data region (fig. 2,num. S203) in input image

data (fig. 2,num. S201),

b.   a second step (fig. 2, num. S208) of rotating said input image data in

accordance with inclination (fig. 2,num. S204) of an image within said input

image data,

c.   a third step of detecting whether said rotated data region(as shown in fig.

8B relative to 8A) protrudes (or "shifted" in col. 5, line 60) from said input image

data (fig. 8A and represented in fig. 8A as a dotted line corresponding to 801 of

fig. 8A), and

d.   a fourth step of extracting the smallest area (via "character recognizing" in

col. 5, line 43 recognizes characters as shown in fig. 8 that is the smallest area

relative to other objects in a document as shown in fig. 4) including said

rotated data region when protrusion is detected at said third step.

Regarding claim 2, Ikeda discloses the image processing method according to

claim 1, wherein

a.   said first step includes a step of:

i.   detecting a specific region (fig. 3,num. 306) which satisfies a

predetermined condition ("necessary portion" in col. 3, line 34) from said

data region,

b.   said third step includes a step of

ii.   detecting whether said specific region (as represented in fig. 8B as

text) protrudes (said shifted) from said input image data (fig. 8A),

c.   when protrusion is detected at said third step, the smallest area including

said specific region is extracted from said image data at said fourth step.

Regarding claim 3, Ikeda discloses the image processing method according to

claim 2, wherein said specific region includes a plurality of data regions (or letters of text

as shown in fig. 8A).

Regarding claim 4, Ikeda discloses the image processing method according to

claim 2, wherein said predetermined condition indicates predetermined type (said text)

of said data region.

Claims 5 and 6 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claims 5 and 6.

Regarding claim 7, Ikeda discloses the image processing method according to claim 4, wherein an operator specifies (or inputs via fig.1, num. 108) said predetermined types of data region.

Regarding claim 8, Ikeda discloses the image processing method according to claim 2, wherein said predetermined condition indicates a relative position (as shown in fig. 3,num. 303 which is the center of a document) of said data region with respect to other data regions (fig. 3,num. 305 that is a "peripheral portion" in col. 3, line 36).

Regarding claim 9, Ikeda discloses the image processing method according to claim 2, wherein said relative position is defined by centroids (or "center of gravity" in col. 5, line 8) of said data regions (fig. 8B,num. 802 and fig. 8C: center rectangle).

Claim 10 is rejected the same as claims 2 and 4. Thus, argument similar to that presented above for claims 2 and 4 is equally applicable to claim 10.

Regarding claim 1, Ikeda discloses an image processing method comprising:

a.   a first step of detecting a data region (fig. 3,num. 306) in input image data
(fig. 3,num. 301),

b.   a second step (fig. 4) of rotating said input image data in accordance with
inclination (fig. 3,num. 302) of an image within said input image data,

c.   a third step of detecting whether said rotated data region (fig. 4) protrudes
(as shown by the dotted line in fig. 4 that was labeled as 305 in fig. 3 and
similarly represented in fig. 8C that shifts data to the right as shown in fig.
8C,num. 805 that is shifted out of a range of the display corresponding to the
doted line of fig. 4) from said input image data (fig. 3,num. 301), and

d.   a fourth step of extracting the smallest area (via "character recognizing" in
col. 5, line 43 recognizes characters as shown in fig. 8 that is the smallest area
relative to other objects in a document as shown in fig. 4) including said
rotated data region when protrusion is detected at said third step.

Regarding claim 12, Ikeda discloses the image processing method according to
claim 1, wherein, in said third step, detection is made whether every pixels (as
represented as said dotted line of fig. 4) in said rotated data region protrudes from said
input image data (fig. 3,num. 301 as correspondingly represented in fig. 4 as an
unlabeled perimeter of fig. 4).

Claim 13 is rejected the same as claim 12. Thus, argument similar to that
presented above for claim 12 is equally applicable to claim 13.

Regarding claim 1, Ikeda discloses an image processing method comprising:

a.   a first step of detecting a data region (fig. 6, num. 601) in input image data,

b.   a second step of rotating said input image data in accordance with inclination (via angle "θ" in fig. 6) of an image within said input image data,

c.   a third step of detecting whether said rotated data region protrudes (or "projection...doesn't exist" in col. 4, lines 15,16 which protrudes as shown in fig. 6 as num. 602 from fig. 6, num. 601) from said input image data, and

d.   a fourth step of extracting the smallest area including said rotated data region (via "character recognizing" in col. 5, line 43 recognizes characters as shown in fig. 8 that is the smallest area relative to other objects in a document as shown in fig. 4) when protrusion is detected at said third step.

Regarding claim 11, Ikeda discloses the image processing method according to claim 1, further comprising:

a.   a fifth step of extracting the whole of said rotated input image data (via a "registration" in col. 5, line 41 of images) when protrusion is not detected (as discussed above in paragraph "c." with respect to doesn't exist) at said third step.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagasaki (US Patent 6,963,349 B1) is pertinent as teaching a method of rotating an image as indicated in fig. 6 with protrusion in the horizontal and vertical directions as indicated in fig. 9.

Kimbell et al. (US Patent 6,456,732 B1) is pertinent as teaching a method of rotating and fitting via scaling as done in fig. 3.

Taylor et al. (US Patent 6,178,270 B1) is pertinent as teaching a method of rotating an image as shown in fig. 1,num. 6 that protrudes from fig. 1,num. 6 as shown by fig. 2,num.2.

Yamada (US Patent 5,608,541) is pertinent as teaching a method protruding letters as shown in fig. 12(b) after rotation of fig. 12(a).

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dennis Rosario
Unit 2624

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600